COMPARING MASSACHUSETTS TO OTHER STATES IN TERMS OF THE IMPACT OF STATE AND LOCAL TAXATION

Summary

In August 2008, Massachusetts Secretary of Education Paul Reville asked Augenblick, Palaich and Associates (APA) to examine the impact of state and local taxes in Massachusetts and to compare Massachusetts to other states in order to determine whether a change in Massachusetts state tax policy might allow new revenues to be generated without harming the state's competitive position. APA is a private education policy consulting firm which, for the past 25 years, has provided independent, nonpartisan analyses on a variety of education and fiscal policy issues.

In conducting this work, APA examined data pertaining to: (1) state and local revenues; (2) state and local tax burdens; (3) the change in tax burden between 1995-96 and 2005-06; (4) the change in tax revenue relative to inflation between 1995-96 and 2005-06; and (5) the proportion of state income devoted to public elementary and secondary education. For APA's purposes, this data is in many cases used to compare Massachusetts to:

1. Nearby states: Seven nearby states, including Connecticut, Maine, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.
2. Similar states: Six additional states from across the country that are similar to Massachusetts in terms of population, wealth, and student education needs, including Colorado, Maryland, Minnesota, Virginia, Washington, and Wisconsin.
3. All states: Massachusetts data is compared to nationwide averages in several categories.

Key findings which emerge from this comparative analysis include:

- State level tax burden: In 2005-06, the burden of all state-level taxes combined together was higher in nearby states but about the same in similar states and for the nationwide average. If the burden of selective sales taxes, corporate income taxes, and motor vehicle taxes in Massachusetts had been the same as it was, on average, in nearby states, Massachusetts would have generated $1.96 billion more revenues.

- Local tax burden: Massachusetts has a lower local tax burden as compared to the averages of nearby states, similar states, and the nationwide average. This is true despite the fact that the burden of local property taxes in Massachusetts is higher than that of similar states and the national average. Raising the overall local tax burden in Massachusetts to match those of nearby states, similar states, and all states would have generated $3.11 billion, $.70 billion, and $1.92 billion in new revenue respectively in 2005-06.

- Combined state and local tax burden: Massachusetts has a lower combined state and local tax burden than any of the comparison state groups. If the combined state and local tax burden in Massachusetts in 2005-06 had matched that of the comparison state groups, Massachusetts would have raised significantly higher revenues:
    - Compared to the *nearby* states, Massachusetts would have generated $5.25 billion more revenues.

- Compared to the *similar* states, Massachusetts would have generated $548 million more revenues.
- Compared to the *national average*, Massachusetts would have generated $1.83 billion more revenues.

- Ten year trend in tax burden: Looking back over the period from 1995-96 to 2005-06, data shows that the overall tax burden in Massachusetts decreased significantly in every category – from a 4.5 percent decrease for property taxes to a 13.5 percent decline for corporate income taxes. Again, these reductions in tax burden over the ten year period were generally greater than the reductions in the comparison states.

- Types of taxes levied: In Massachusetts, about 63 percent of state and local taxes were state-level taxes, a proportion only slightly higher than the average of nearby states (60 percent), similar states (62 percent), and the national average (60 percent). Massachusetts derived a higher proportion of all state-level taxes from sales and income taxes as compared to the average of nearby states, similar states, and the national average (94.2 percent vs. 82.8 percent, 87.9 percent, and 88.1 percent, respectively). Massachusetts derived a higher proportion of all local-level taxes from property taxes as compared to the average of nearby states, similar states, and all states (96.3 percent vs. 87.8 percent,69.4 percent, and 71.7 percent, respectively).

Finally, while APA was asked to examine state and local taxes in general, we thought it made sense to also take a look at the burden on taxpayers to support public elementary and secondary education. Our findings show that the 2005-06 burden in Massachusetts was higher than that of similar states and the national average but lower than that of any of the nearby states. If the burden in Massachusetts had been the same as the average of the nearby states, Massachusetts would have spent $1.91 billion more for public education in 2005-06, an increase of 15.6 percent.

Given the complexity of state and local taxation and the numerous ways of looking at the impact of state and local taxes, it is never a simple matter to modify tax policy. However, it appears that Massachusetts could take the following steps simultaneously to generate new revenue and reduce reliance on high-burden taxes (personal income and property) while remaining competitive with other states, particularly those that are nearby:

1. Increase the burdens of state-level general sales taxes by 25 percent and state-level selective sales taxes by 60 percent.
2. Create a local-level general sales tax with a burden of $2.00 per $1,000 of personal income.
3. Decrease state-level personal income taxes by 15 percent and state-level corporate income taxes by 10 percent.
4. Decrease local-level property taxes by 10 percent but create a state-level property tax with a burden of about $1.50 per $1,000 of personal income.
5. Increase state-level motor vehicle taxes by 50 percent.

The above scenario is just one of many options Massachusetts might consider, and additional modeling could be used to identify the most appropriate alternative for the state.

Introduction

In August of 2008, Massachusetts Secretary of Education Paul Reville asked Augenblick, Palaich and Associates (APA) to examine the impact of state and local taxes in Massachusetts and to compare Massachusetts to other states in order to determine whether a change in Massachusetts state tax policy might allow new revenues to be generated without harming the state's competitive position. Focusing on 2005-06, we examined: (1) state and local revenues; (2) the state and local tax burdens faced by the average taxpayer in Massachusetts; (3) the change in tax burden between 1995-96 and 2005-06; (4) the change in tax revenue relative to inflation between 1995-96 and 2005-06; and (5) the proportion of state income devoted to public elementary and secondary education. In most cases we compared Massachusetts to seven nearby states, to six additional states that we identified as being similar to Massachusetts, and to the nationwide average.

Alternative Ways of Looking at Taxes

There are a variety of ways to look at taxes, some of which require far more information than is routinely available from agencies that collect tax information for all states, such as the Governments Division of the U.S. Census Bureau. While government is interested in the amount of revenue taxes – and other sources – produce, short-term political concern (and long-term economic concern) tends to focus on the burden of taxes on the people who pay them.

The simplest and most common way to examine tax burden is based on the ratio of revenue produced by a tax to personal income, which is expressed as an effective tax rate per $1,000 of income. Using this measure, if a particular tax generated $250,000,000 in a state in which the total personal income was $10,000,000,000, the tax burden would be $25 per $1,000 of income ($250,000,000/$10,000,000,000/1,000). While a figure of $25 per $1,000 suggests that a person with a $70,000 income would pay $1,750 in taxes ($25 times $70,000/1,000), tax policy might actually result in a higher or lower amount depending on the progressivity of the policy (that is, a more progressive tax policy would operate in such a way as to require people with higher incomes to pay a higher proportion of their income relative to people with lower incomes while a more regressive tax policy would operate in such a way as to require people with higher incomes to pay a lower proportion of their income relative to people with lower incomes).

Measuring tax burden as a ratio of revenue produced to personal income makes it easy to compare the relative burden of different taxes in a particular year as well as to compare how the burden of the same taxes changes over time, albeit based on the average taxpayer (the relative burden of different taxes may be somewhat different for people of different income levels as compared to the average and the burdens on people with different incomes may look somewhat different over time as compared to the impact on people with average income).

Another way to examine taxes is on a per capita basis (total taxes collected divided by total population). In many cases, the demand for tax revenue is driven by population so a per capita measure is useful in understanding the capacity to address public needs. Since APA was not asked to determine whether tax revenues were sufficient to address the needs of the public, our only interest in a per capita measure of taxation is related to a state's ability to keep up with cost pressures associated with increasing population or the impact of inflation on costs over time.

Finally, APA did want to understand the magnitude of the effort a state makes to support public elementary and secondary education. This is most easily done by determining the proportion of all personal income that is devoted to public education current spending not reflecting federal support. If, for example, total current operating spending for public elementary and secondary education, less federal revenue, was $400,000,000 and total personal income was $10,000,000,000, then 4.0 percent of income would be devoted to education and we would refer to the 4.0 percent as the state's effort to support education.

It should be noted that we do not take into consideration inter-state cost-of-living differences in any of the comparisons we make. This is the case since most of our effort focuses on tax burden. Burden is a ratio where tax revenue is compared to income – since both are affected by interstate cost-of-living differences, the ratio is calculated by dividing two numbers, both of which are affected in the same way by such differences, thereby "cancelling out" the impact for purposes of interstate comparison. The same is true for the magnitude of state effort (the proportion of income devoted to education) since that is also a ratio (spending divided by income, both of which would be affected by cost-of-living differences, which are eliminated in the act of division). Per capita figures are affected by cost-of-living differences but since our concern is the change in per capita figures over time, not in one year, once again cost-of-living differences do not affect the ability to compare change over time across states (percentage change over time is also a ratio of two numbers, both of which are affected to the same extent by cost differences, thereby cancelling them out – the only time this would not be true is if cost of living differences varied over time but we assume that they do not).

Selecting States for Comparison to Massachusetts

It is not unusual when examining a state's tax burden to compare it to the national average or to the burdens of similar taxes in nearby states. The national average serves as a useful benchmark, particularly of change over time. Comparison to nearby states is useful because states compete with one another in terms of attractiveness to people with certain characteristics, such as education level and income, and businesses. Comparisons of one state's tax burdens to those of its neighbors are indicative of competitiveness in attracting and retaining businesses and population. In the case of Massachusetts, APA selected Connecticut, Maine, New Hampshire, New Jersey, New York, Rhode Island, and Vermont as being "nearby" either because they bordered Massachusetts or because they were one state removed from bordering Massachusetts which, given geography and distance, should make them competitors with Massachusetts in terms of economic activity and population.

Another basis for comparing one state to another in terms of tax burden is similarity in terms of need and aspiration relative to a particular government service – in this case, public education. States with similar needs would likely have to spend similar amounts in order to provide needed programs and services and states with similar aspirations would need to spend similar amounts to meet their goals. One indicator of need is the presence of students with special needs, such as students from low income families, who have been shown to require more and/or different programs and services, which in the aggregate cost more than the programs and services provided to students from middle-class families. One indicator of aspiration is wealth; in general, the higher the wealth of communities, the more they spend on education, typically because they supplement state support and expected local support with added support generated by higher taxes and/or higher voluntary contributions. Another factor that is useful to consider is size (population) since that can affect the cost of providing almost any service, including education (population at the state level is not as important as enrollment level at the district

or school level); but APA's experience is that state policy makers feel more comfortable comparing their state to others of similar size.

The figures in Table 1 indicate How Massachusetts compares to other states in terms of size, wealth, and education need. While the population of Massachusetts is slightly higher than that of the average state, the variation in size among states is large (seven states have less than one million residents while four states have more than 18 million people). The median family income of Massachusetts is considerably higher than the simple average of all states but the variation among states in income is far less than it is for population. In terms of needs, our estimate is that the cost of serving students from low income families, students in special education programs, and students who are English-language learners in Massachusetts is about 32.2 percent higher than the cost would be if no students had any of these kinds of special needs. While the variation among states in student need is even smaller than the variation in income, Massachusetts is slightly below the simple average of all states.

Given that the variation across states is so different for population, wealth, and education need, APA decided to define "similarity" somewhat differently for the three indicators: (1) for population, we identified states that were within 40 percent of Massachusetts; (2) for wealth, we identified states that were within 15 percent (plus or minus) of Massachusetts; and (3) for need, we identified states that were within 10 percent of Massachusetts. Using these levels, we found 16 states that were similar to Massachusetts in terms of size, 21 states that were similar in terms of wealth, and 29 states that were similar in terms of education need; combining the three factors, we found six states (Colorado, Maryland, Minnesota, Virginia, Washington, and Wisconsin) that were similar to Massachusetts.

Tax Burden

In order to understand the burden of taxes on taxpayers, it is important to have a general understanding of all sources of government revenue. Public finance recognizes three levels of government – federal, state, and local – that interact with each other in generating revenue, sometimes using the same taxes (personal income, general sales, and property) to do so. Since state policy directly influences only state and local taxation, we focus on state and local governments, providing some information for the state level, some for the local level, and some where the two are combined. Further, we examine "own source" revenue, revenue obtained directly by policy decisions made at the state or local levels, which excludes revenues coming from other levels of government (such as federal aid to states or school districts, based on policies not controlled by state and local policy makers in Massachusetts). While we are aware that state and local governments obtain funds from non-tax sources, such as fees, we only take note of such revenues briefly. Finally, we focus on taxes that provide significant revenues, including general sales taxes (ones that are uniform on most, but perhaps not all, sales of goods), selective sales taxes (in the aggregate, including ones on specific items such as tobacco, liquor, or hotel rooms), personal income taxes (paid on wages earned and typically based on progressive policies under which tax rates increase as income rises), corporate income taxes, property taxes, and motor vehicle taxes. The fact that a tax has a tax burden does not mean that every person pays the tax or that the burden on every person is uniform due to tax policy that exempts some items from taxation or changes the rate of taxation depending on some factor, such as income level.

State-Level Taxes

Looking at Table 2A, state-level revenue in 2005-06, Massachusetts had a population of 6.4 million people and total personal income of $297.9 billion. In that year, the state's own source revenue was $27.7 billion, which resulted in a burden of $93.05 per $1,000 of personal income (the median family, with an income of about $56,600 was responsible for $5,267). Of that burden, $65.11 per $1,000 of personal income, or about 70 percent of all own source revenue, came from state taxes, with the remainder coming from interest income and other revenue, such as fees. Of all state taxes, general sales taxes produced a burden of $13.46 per $1,000 of personal income, selective sales taxes had a burden of $6.47 of personal income, personal income taxes had a burden of $35.19 per $1,000 of personal income, corporate income taxes had a burden of $6.24 per $1,000 of personal income, there were no state-level property taxes, motor vehicle taxes had a burden of $.99 per $1,000 of personal income, and other taxes had a burden of $2.75 per $1,000 of personal income. These figures, in and of themselves, are neither good or bad – applied against actual income in the particular ways that tax policies operate, they produce a certain amount of revenue, which allows the state to provide public services at a certain level.

Massachusetts' tax burdens can be compared to those of other states. In making such comparisons, we assume that tax burdens within plus or minus five percent of Massachusetts are similar while tax burdens that are more than five percent above Massachusetts are labeled as being "higher" and tax burdens that are more than five percent below Massachusetts are labeled as being "lower." In the table, tax burdens of other states shown in black are similar to those in Massachusetts, those shown in orange are lower than those in Massachusetts, and those shown in blue are higher than those in Massachusetts. While the table indicates burdens for each tax, for each state, it is sometimes convenient to compare a Massachusetts figure to the simple average of a group of states (nearby states, similar states, or all states – the tax burden for all states is a weighted average, not a simple average of state figures unweighted by the size of each state in the group).

For example, in 2005-06, the burden of all state-level taxes combined together was higher in nearby states ($72.28 vs. $65.11) but about the same in similar states and for all states ($65.11 vs. $64.61 or $64.81). In terms of specific taxes, both general sales taxes and selective sales taxes were lower in Massachusetts than they were in nearby states, similar states, and the nation as a whole while personal income and corporate income taxes were higher in Massachusetts than they were in nearby states, similar states, and the nation as a whole. One way to think about the differences is to calculate the total amount of money involved. If the burden of selective sales taxes, corporate income taxes, and motor vehicle taxes in Massachusetts had been the same as it was, on average, in nearby states, Massachusetts would have generated $1.96 billion more revenue – the state could have reduced personal income taxes by $.96 billion (9.2 percent) and still have raised one billion dollars in new revenue. Taking the same approach would have generated $610 million more, in comparison to the average tax burden of all states, which would have allowed the state to reduce personal income taxes by $110 million (1.1 percent) and still have raised $500 million in new revenue. Massachusetts could have raised $256 million in new revenue if it had had the same tax burden as similar states for selective sales, corporate income, and motor vehicle taxes.

Local-Level Taxes

Table 2B shows similar tax burden information for local-level revenues in 2005-06. In terms of taxes, Massachusetts has a lower tax burden as compared to the averages of nearby states, similar states, and all states despite the fact that the burden of local property taxes in Massachusetts is higher than that of similar states and the national average. Raising local tax burden in Massachusetts to those of nearby states, similar states, and all states would have generated $3.11 billion, $.70 billion, and $1.92 billion in new revenue respectively.

Tables 2C and 2D indicate the state-level and local-level tax burdens of Massachusetts and those of nearby states, similar states, and all states in 1995-96. These tables are included to provide the data that were used to calculate the change in tax burden over time, which is discussed below.

Combined State and Local Taxes

Given both the perception that tax burden is based on the combined impact of state and local taxes and the fact that some government functions, such as elementary and secondary education derive revenue from state and local taxes, it is useful to examine the tax burden that results when state-level and local-level taxes are combined on a tax by tax basis. Table 3A indicates the combined state-local tax burden in 2005-06 (for interest, Table 3B does so for 1995-96). Perhaps of most interest is the fact that the burden of combined state and local taxes in Massachusetts (at $102.84 per $1,000 of personal income, which generated $30.64 billion) is about the same as that of the average of the similar states while being lower than the average of the nearby states or all states. If the combined tax burden in Massachusetts had been at the same level as the average of the similar states, Massachusetts would have generated $548 million more revenue. Had the tax burden in Massachusetts been at the same level as the nearby states, Massachusetts would have raised $5.25 billion more than it did; the state would have produced $1.83 billion more if the combined state-local tax burden had been the same as the national average.

These results come about because the burdens of general sales taxes and specific sales taxes are comparatively lower in Massachusetts relative to how much higher the tax burdens of personal income taxes, corporate income taxes, and property taxes are. While it is true that the combined burden of state-local general sales taxes, state-local personal income taxes, and state-local property taxes (sometimes thought of as the three legs of the tax stool) are slightly higher in Massachusetts than in similar states and the national average (although lower than that of the nearby states), the tax burden of selective sales taxes is proportionately much lower in Massachusetts than it is in the nearby states, similar states, and all states. Some people support high selective sales taxes because they are targeted toward products or services considered to be unnecessary, even harmful, or ones purchased by non-residents. To illustrate, in Massachusetts if the burden of general sales taxes were $3.50 higher and the burden of selective sales taxes $5.00 higher, the state could have lowered both the personal income tax burden and the property tax burden by 10 percent (each) and still raised $400 million in new revenue.

In Massachusetts, about 63 percent of state and local taxes were state-level taxes, a proportion only slightly higher than the average proportions of nearby states (60 percent), similar states (62 percent), and all states (60 percent). Massachusetts derived a higher proportion of all state-level taxes from sales and income taxes as compared to the average of nearby states, similar states, and all states (94.2 percent vs. 82.8 percent, 87.9 percent, and 88.1 percent, respectively). Massachusetts derived a higher proportion of all local-level taxes from property taxes as compared to the average of nearby states, similar states, and all states (96.3 percent vs. 87.8 percent,69.4 percent, and 71.7 percent, respectively).

Change in Tax Burden Over Time

Over the period from 1995-96 to 2005-06 the tax burden in Massachusetts decreased significantly. AS shown in Table 3C, the burden of combined state and local taxes dropped in every category, from a 4.5 percent decrease for property taxes to a 13.5 percent decline for corporate income taxes. In part, decreases in tax burden reflect increases in income; the increase in per capita income in Massachusetts between 1995-96 and 2005-06 exceeded the average of nearby states, similar states, and all states. Regardless of the change in income, the reduction in tax burden in Massachusetts was greater than the reduction in tax burden in nearby states and all states in almost every category (the exception is property taxes). Reductions in the tax burden of general sales taxes, personal income taxes, and corporate income taxes were greater in Massachusetts than the average of similar states. It is worth noting that the tax burden of personal income taxes increased in nearby states and for all states while the burden of corporate income taxes rose in nearby states and similar states.

Tax Revenues and Inflation

While it is important to examine tax burdens and how they have changed over time, it is also useful to understand whether the revenue produced by taxes has kept pace with inflation. In order to evaluate the relationship between revenue and inflation, it is necessary to examine revenue relative to need – tax burden looks at revenue from the perspective of taxpayers and total revenue does not consider the need for which revenue is being generated. The simplest indicator of need is population; most public programs reflect services provided to people and even though needs may vary by characteristics of people (as described above in selecting states similar to Massachusetts), population is a reasonable indicator of need when comparing states.

The figures in Table 4A show the amount of revenue obtained per capita from combined state and local taxes in 2005-06. Similar figures for 1995-96 are shown in Table 4B. While we could examine the figures shown in Tables 4A and 4B to determine how Massachusetts compares to other states, such an examination would require that the figures be adjusted by an inter-state cost-of-living adjustment since money has a different value in different locales; in fact, our interest is in the change in per capita revenue between 1995-96 and 2005-06, which is shown in Table 4C.

As shown in Table 4C, the per capita revenue obtained from combined state and local taxes grew significantly in the decade preceding 2005-06, increasing by 51.6 percent overall. Property taxes rose more rapidly than sales or income taxes. Given that inflation grew by 28.5 percent over the period (based on the Consumer Price Index), tax revenue in Massachusetts rose more than inflation, providing money for new programs and services beyond those that had been provided in 1995-96 (it should be noted that per capita figures eliminate the need to consider population growth over the decade, which varied among the states).

It is interesting that growth in tax revenue in Massachusetts was slightly lower than the national average, slightly higher than the growth in similar states, but slower than the average of nearby states (and each nearby state other than Connecticut). Growth in revenue obtained from sales taxes (both general and selective) in Massachusetts was about the same as the average of nearby states, the average of similar states, and the average of all states (although there was wide variation among nearby states). Growth in income taxes (both personal and corporate) in Massachusetts was lower than that of nearby states, similar states, and the nation while growth in property taxes in Massachusetts was a bit higher than the average of nearby states, five out of six similar states, and the average of all states.

State Effort to Support Public K-12 Education

While APA was asked to examine state and local taxes in general, without being concerned about how taxes were specifically used to support any public function, we thought it made sense to take a look at the burden on taxpayers to support public elementary and secondary education and how that burden has changed over time. One way to calculate the taxpayer burden associated with a particular service is to divide how much is being spent on the service by total personal income (if $1 billion was spent on a particular service and total personal income was $50 billion, the taxpayer burden would be two percent – that is, taxpayers are paying two percent of their income to support the service).

In the case of elementary and secondary education, APA believes the focus should be on current spending, not capital spending (which can vary dramatically from year to year given the varying needs of different communities). We also felt that it made sense to exclude spending supported by federal funding, which is beyond the control of state and local policy makers. Therefore, we subtracted federal revenue (a proxy for spending since almost none of it is for capital purposes) from current operating spending and divided the result by total personal income, all figures aggregated across all school districts in a state. Then, using the above logic, the burden would be total current spending, minus federal revenue, divided by total personal income. For example, if total current spending was $2.2 billion, federal revenue was $.2 billion, and total personal income was $50 billion, the burden would be four percent.

The figures in Table 5 indicate this calculation for Massachusetts, nearby states, similar states, and the national average for both 2005-06 and 1995-96. In Massachusetts, the burden of public education has grown from 3.59 percent in 1995-96 to 3.84 percent in 2005-06. Interestingly, the burden has remained almost constant in the nearby states, while it has dropped in the similar states and, on average, across all states. The 2005-06 burden in Massachusetts was higher than that of similar states and the national average but lower than that of nearby states (the burden in Massachusetts was lower than any of the nearby states). If the burden in Massachusetts had been the same as the average of the nearby states, Massachusetts would have spent $1.91 billion more for public education in 2005-06, an increase of 15.6 percent.

Conclusion

In 2005-06, the burden of state and local own-source taxes in Massachusetts was $102.84 per $1,000 of personal income. The total tax burden was about 14 percent lower than the average tax burden of seven nearby states (and lower outright than six of the seven nearby states). The total tax burden in Massachusetts was slightly lower than the national average tax burden ($102.84 per $1,000 of personal income vs. $108.97 per $1,000 of personal income) and very slightly lower than the average tax burden of six states that APA determined to be similar to Massachusetts ($102.84 per $1,000 of personal income vs. $104.68 per $1,000 of personal income). If Massachusetts had had the same tax burden as the average of the seven nearby states, it would have generated $5.25 billion in revenue above the $30.64 billion it actually produced (a 17.1 percent increase) in 2005-06.

The burdens of state and local general sales taxes and selective sales taxes were relatively low while the burdens of state and local personal income taxes and corporate income taxes were relatively high in Massachusetts compared to average tax burdens in nearby states, similar states, and all states. The burden of state and local property taxes in Massachusetts was lower than that in nearby states, higher than those in all but one of the similar states, and somewhat higher than the national average burden.

While the burdens of state and local motor vehicle and other taxes were relatively low, the burdens in Massachusetts were lower than those in the nearby states, similar states, and the average of all states. Additionally, tax burdens in Massachusetts have decreased over time.

TABLE 1
IDENTIFYING STATES THAT ARE SIMILAR TO MASSACHUSETTS

States	Three Criteria Used to Select States Similar to Massachusetts: Population — 2006 Total (000s)	Population — States Meeting Criteria (1)	Wealth — 2005-06 Median Family Income	Wealth — States Meeting Criteria (2)	Student Need — 2004-05 Relative Student Need*	Student Need — States Meeting Criteria (3)	States Meeting All Three Criteria
Massachusetts	**6,437**		**$56,592**		**1.323**		
Alabama	4,599	x	$38,160		1.351	x	
Alaska	670		$57,071	x	1.395		
Arizona	6,166	x	$46,693		1.540		
Arkansas	2,811		$37,458		1.365	x	
California	36,458		$54,385	x	1.530		
Colorado	4,753	x	$53,900	x	1.341	x	√
Connecticut	3,505		$60,551	x	1.264		
Delaware	853		$52,676	x	1.326	x	
Florida	18,090		$45,038		1.413		
Georgia	9,364		$48,388	x	1.350	x	
Hawaii	1,285		$61,005	x	1.375		
Idaho	1,466		$45,919		1.340	x	
Illinois	12,832		$49,328	x	1.376		
Indiana	6,314	x	$44,618		1.359	x	
Iowa	2,982		$48,075		1.304	x	
Kansas	2,764		$44,478		1.342	x	
Kentucky	4,206	x	$38,694		1.435		
Louisiana	4,288	x	$37,472		1.403		
Maine	1,322		$45,503		1.311	x	
Maryland	5,616	x	$63,082	x	1.280	x	√
Michigan	10,096		$48,043		1.305	x	
Minnesota	5,167	x	$56,102	x	1.316	x	√
Mississippi	2,911		$34,343		1.402		
Missouri	5,843	x	$44,487		1.330	x	
Montana	945		$39,821		1.308	x	
Nebraska	1,768		$48,820	x	1.354	x	
Nevada	2,496		$51,036	x	1.389		
New Hampshire	1,315		$60,411	x	1.224		
New Jersey	8,725	x	$66,752		1.305	x	
New Mexico	1,955		$40,126		1.600		
New York	19,306		$48,472	x	1.271		
North Carolina	8,857	x	$41,616		1.364	x	
North Dakota	636		$42,311		1.280	x	
Ohio	11,478		$45,776		1.280	x	
Oklahoma	3,579		$38,859		1.430		
Oregon	3,701		$46,349		1.411		
Pennsylvania	12,441		$48,148	x	1.278	x	
Rhode Island	1,068		$52,421	x	1.361	x	
South Carolina	4,321	x	$40,583		1.367	x	
South Dakota	782		$44,996		1.287	x	
Tennessee	6,039	x	$40,696		1.393		
Texas	23,508		$43,044		1.448		
Utah	2,550		$55,619	x	1.337	x	
Vermont	624		$52,174	x	1.249		
Virginia	7,643	x	$55,368	x	1.319	x	√
Washington	6,396	x	$53,515	x	1.332	x	√
West Virginia	1,818		$38,029		1.386		
Wisconsin	5,557	x	$48,903	x	1.294	x	√
Wyoming	515		$46,613		1.303		
Simple Average	5,967		$47,876		1.354		
Simple Standard Deviation	6,731		$7,476		0.073		
Simple Coefficient of Var.	1.128		0.156		0.054		
Total Number of States Meeting Criteria (excluding Massachusetts)		16		21		29	6

(1) Within + or - 40% of Massachusetts
(2) Within + or - 15% of Massachusetts
(3) Within + or - 10% of Massachusetts

* In order to determine need, students are weighted based on relative cost, as follows: special education = 1.0; free and reduced-price lunch = .40; and English-language learners = .9

TABLE 2A

2005-06 TAX BURDENS OF STATE-LEVEL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

	Personal Income and Population		All State Revenue from Own Sources											
				State Taxes										
					Sales Taxes			Income Taxes						
States	Total Personal Income (000s)	Population (000s)	Total State Own Revenue	Total State Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes	Interest Income	Other Own Revenue
United States	*$10,968,393,000*	*299,398*	*$88.09*	*$64.81*	*$30.36*	*$20.67*	*$9.69*	*$22.42*	*$4.33*	*$1.08*	*$1.73*	*$4.90*	*$3.48*	*$19.80*
Massachusetts	**$297,905,362**	**6,437**	**$93.05**	**$65.11**	**$19.93**	**$13.46**	**$6.47**	**$35.19**	**$6.24**	**$0.00**	**$0.99**	**$2.75**	**$7.78**	**$20.17**
Range of Similarity: 95-105%→			$88.40-97.70	$61.85-68.37	$18.93-20.93	$12.79-14.13	$6.15-6.79	$33.43-36.95	$5.93-6.55	--	$.94-1.04	$2.61-2.89	$7.39-8.17	$19.16-21.18
Nearby States														
Connecticut	$177,452,995	3,505	$86.13	$68.37	$28.01	$17.14	$10.87	$32.56	$3.58	$0.00	$1.27	$2.95	$3.48	$14.28
Maine	$42,202,194	1,322	$118.32	$85.27	$39.54	$24.67	$14.86	$32.44	$4.46	$0.98	$1.97	$5.89	$5.01	$28.04
New Hampshire	$52,148,718	1,315	$66.51	$39.90	$13.58	$0.00	$13.58	$1.55	$10.41	$7.37	$1.70	$5.30	$7.07	$19.54
New Jersey	$405,254,344	8,725	$86.53	$64.81	$25.89	$16.91	$8.98	$25.93	$6.19	$0.01	$1.09	$5.71	$3.26	$18.46
New York	$848,936,717	19,306	$91.63	$67.62	$22.63	$13.27	$9.36	$36.30	$4.73	$0.00	$0.91	$3.05	$3.62	$20.39
Rhode Island	$39,835,439	1,068	$101.58	$68.83	$35.11	$21.44	$13.67	$25.59	$4.26	$0.04	$1.43	$2.39	$9.00	$23.75
Vermont	$21,647,445	624	$146.48	$111.18	$37.01	$15.06	$21.95	$25.04	$3.98	$38.08	$2.75	$4.32	$7.05	$28.25
Simple Average of Nearby States→			*$99.60*	*$72.28*	*$28.82*	*$15.50*	*$13.33*	*$25.63*	*$5.37*	*$6.64*	*$1.59*	*$4.23*	*$5.50*	*$21.82*
Similar States														
Colorado	$188,221,719	4,735	$67.83	$45.28	$17.28	$11.18	$6.10	$22.63	$2.43	$0.00	$1.07	$1.86	$4.19	$18.36
Maryland	$245,303,232	5,616	$78.69	$59.62	$23.33	$13.79	$9.54	$25.08	$3.45	$2.35	$1.82	$3.59	$2.75	$16.32
Minnesota	$200,300,473	5,167	$104.99	$86.53	$36.08	$22.15	$13.92	$34.26	$5.35	$3.17	$2.60	$5.07	$2.26	$16.21
Virginia	$302,098,188	7,643	$85.89	$56.91	$18.96	$10.80	$8.15	$30.03	$2.86	$0.07	$1.18	$3.82	$3.30	$25.67
Washington	$243,597,024	6,396	$88.49	$67.37	$52.98	$41.25	$11.73	$0.00	$0.00	$6.69	$1.67	$6.02	$2.64	$18.47
Wisconsin	$191,725,759	5,557	$99.49	$71.95	$31.06	$21.53	$9.53	$30.81	$4.22	$0.59	$1.75	$3.52	$4.54	$23.00
Simple Average of Similar States→			*$87.56*	*$64.61*	*$29.95*	*$20.12*	*$9.83*	*$23.80*	*$3.05*	*$2.14*	*$1.68*	*$3.98*	*$3.28*	*$19.67*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 2B

2005-06 TAX BURDENS OF LOCAL-LEVEL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

	Personal Income and Population		All Local Revenue from Own Sources											
				Local Taxes										
					Sales Taxes			Income Taxes						
States	Total Personal Income (000s)	Population (000s)	Total Local Own Revenue	Total Local Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes	Interest Income	Other Own Revenue
United States	*$10,968,393,000*	*299,398*	*$69.98*	*$44.16*	*$7.22*	*$5.06*	*$2.16*	*$2.07*	*$0.50*	*$31.67*	*$0.14*	*$2.58*	*$3.03*	*$22.78*
Massachusetts	**$297,905,362**	**6,437**	**$49.64**	**$37.73**	**$0.52**	**$0.00**	**$0.52**	**$0.00**	**$0.00**	**$36.35**	**$0.00**	**$0.86**	**$0.93**	**$10.98**
Range of Similarity: 95-105%→			$47.16-52.12	$35.84-39.62	$.49-.55	--	$.49-.55	--	--	$34.53-38.17	--	$.82-.90	$.88-.98	$10.43-11.52
Nearby States														
Connecticut	$177,452,995	3,505	$51.08	$43.62	$0.00	$0.00	$0.00	$0.00	$0.00	$42.64	$0.00	$0.98	$0.92	$6.55
Maine	$42,202,194	1,322	$67.62	$52.30	$0.04	$0.00	$0.04	$0.00	$0.00	$51.40	$0.27	$0.58	$1.56	$13.77
New Hampshire	$52,148,718	1,315	$56.97	$46.72	$0.00	$0.00	$0.00	$0.00	$0.00	$45.95	$0.00	$0.77	$1.28	$8.97
New Jersey	$405,254,344	8,725	$65.57	$51.92	$0.28	$0.00	$0.28	$0.00	$0.00	$50.70	$0.00	$0.94	$1.22	$12.44
New York	$848,936,717	19,306	$103.59	$78.05	$14.59	$12.41	$2.18	$9.19	$5.92	$42.92	$0.14	$5.28	$2.64	$22.90
Rhode Island	$39,835,439	1,068	$58.06	$48.66	$0.16	$0.00	$0.16	$0.00	$0.00	$47.35	$0.00	$1.14	$0.85	$8.55
Vermont	$21,647,445	624	$27.06	$16.00	$0.45	$0.18	$0.26	$0.00	$0.00	$14.96	$0.00	$0.58	$0.98	$10.08
Simple Average of Nearby States→			*$61.42*	*$48.18*	*$2.22*	*$1.80*	*$0.42*	*$1.31*	*$0.85*	*$42.28*	*$0.06*	*$1.47*	*$1.35*	*$11.89*
Similar States														
Colorado	$188,221,719	4,735	$77.20	$46.23	$15.74	$14.32	$1.42	$0.00	$0.00	$27.99	$0.15	$2.34	$3.21	$27.76
Maryland	$245,303,232	5,616	$59.71	$45.51	$2.04	$0.00	$2.04	$15.07	$0.00	$21.95	$0.00	$6.45	$1.29	$12.91
Minnesota	$200,300,473	5,167	$55.62	$25.76	$1.06	$0.34	$0.72	$0.00	$0.00	$23.49	$0.02	$1.18	$3.67	$26.20
Virginia	$302,098,188	7,643	$60.24	$42.59	$7.82	$3.38	$4.45	$0.00	$0.00	$30.50	$0.50	$3.77	$2.15	$15.50
Washington	$243,597,024	6,396	$64.38	$35.95	$10.29	$7.24	$3.05	$0.00	$0.00	$21.68	$0.13	$3.86	$2.44	$25.99
Wisconsin	$191,725,759	5,557	$63.48	$44.36	$1.71	$1.39	$0.32	$0.00	$0.00	$41.26	$0.00	$1.39	$1.87	$17.25
Simple Average of Similar States→			*$63.44*	*$40.07*	*$6.44*	*$4.45*	*$2.00*	*$2.51*	*$0.00*	*$27.81*	*$0.13*	*$3.16*	*$2.44*	*$20.93*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 2C

1995-96 BURDENS OF STATE-LEVEL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

	Personal Income and Population		All State Revenue from Own Sources											
				State Taxes										
					Sales Taxes			Income Taxes						
States	Total Personal Income (000,000s)	Population (000s)	Total State Own Revenue	Total State Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes	Interest Income	Other Revenue
United States	*$6,079,436*	264,741	*$90.33*	*$68.82*	*$33.90*	*$22.92*	*$10.98*	*$21.97*	*$4.82*	*$1.64*	*$2.09*	*$4.40*	*$4.71*	*$16.80*
Massachusetts	**$170,185**	6,092	**$100.00**	**$73.19**	**$22.85**	**$15.34**	**$7.51**	**$39.41**	**$7.21**	**$0.00**	**$1.29**	**$2.43**	**$6.86**	**$19.95**
Range of Similarity: 95-105%→			$95.00-105.00	$69.53-76.85	$21.71-23.99	$14.57-16.11	$7.13-7.89	$37.44-41.38	$6.85-7.57	--	$1.23-1.35	$2.31-2.55	$6.51-7.20	$18.95-20.94
Nearby States														
Connecticut	$104,056	3,274	$92.48	$75.25	$37.79	$23.50	$14.29	$25.13	$6.16	$0.00	$1.97	$4.20	$4.40	$12.83
Maine	$24,957	1,243	$103.80	$75.99	$37.50	$26.36	$11.13	$28.43	$2.85	$1.74	$2.26	$3.22	$6.99	$20.82
New Hampshire	$29,381	1,162	$57.70	$28.49	$14.59	$0.00	$14.59	$1.76	$6.11	$0.01	$1.79	$4.22	$12.61	$16.59
New Jersey	$237,155	7,988	$84.13	$60.66	$31.05	$18.21	$12.84	$19.96	$4.87	$0.01	$1.66	$3.10	$5.35	$18.13
New York	$501,965	18,185	$86.76	$68.03	$23.73	$13.87	$9.86	$34.66	$5.44	$0.00	$1.24	$2.96	$5.02	$13.71
Rhode Island	$23,601	990	$94.91	$65.84	$33.17	$19.71	$13.47	$24.60	$3.69	$0.39	$2.27	$1.72	$11.97	$17.10
Vermont	$12,415	589	$104.71	$67.74	$32.53	$14.70	$17.83	$22.63	$3.61	$0.85	$3.55	$4.58	$8.34	$28.62
Simple Average of Nearby States→			*$89.21*	*$63.14*	*$30.05*	*$16.62*	*$13.43*	*$22.45*	*$4.68*	*$0.43*	*$2.10*	*$3.43*	*$7.81*	*$18.26*
Similar States														
Colorado	$89,771	3,823	$74.81	$53.70	$22.76	$14.72	$8.04	$25.33	$2.29	$0.00	$1.47	$1.85	$4.25	$16.85
Maryland	$132,784	5,072	$81.12	$61.50	$26.77	$15.06	$11.71	$26.24	$2.49	$1.71	$1.48	$2.81	$3.70	$15.92
Minnesota	$110,494	4,658	$113.78	$92.70	$40.66	$26.25	$14.41	$37.43	$6.36	$0.08	$4.38	$3.79	$4.18	$16.91
Virginia	$158,669	6,675	$83.30	$56.09	$22.62	$12.58	$10.04	$27.11	$2.29	$0.12	$1.63	$2.34	$4.51	$22.70
Washington	$129,117	5,533	$103.05	$81.99	$60.93	$47.88	$13.05	$0.00	$0.00	$13.94	$1.84	$5.27	$3.64	$17.41
Wisconsin	$114,042	5,160	$107.08	$84.05	$35.33	$23.75	$11.59	$36.40	$5.44	$0.74	$2.02	$4.11	$5.13	$17.89
Simple Average of Similar States→			*$93.85*	*$71.67*	*$34.85*	*$23.37*	*$11.47*	*$25.42*	*$3.15*	*$2.76*	*$2.14*	*$3.36*	*$4.24*	*$17.95*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 2D

1995-96 TAX BURDENS OF LOCAL-LEVEL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

	Personal Income and Population		All Local Revenue from Own Sources											
				Local Taxes										
					Sales Taxes			Income Taxes						
States	Total Personal Income (000,000s)	Population (000s)	Total Local Own Revenue	Total Local Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes	Interest Income	Other Revenue
United States	*$6,079,436*	264,741	*$71.95*	*$44.38*	*$7.02*	*$4.87*	*$2.15*	*$2.18*	*$0.44*	*$32.71*	*$0.18*	*$1.84*	*$4.75*	*$22.82*
Massachusetts	**$170,185**	6,092	**$51.80**	**$39.18**	**$0.39**	**$0.00**	**$0.39**	**$0.00**	**$0.00**	**$38.05**	**$0.00**	**$0.75**	**$1.18**	**$11.44**
Range of Similarity: 95-105%→			$49.21-54.39	$37.22-41.14	$.37-.41	--	$.37-.41	--	--	$36.15-39.95	--	$.71-.79	$1.12-1.24	$10.86-12.01
Nearby States														
Connecticut	$104,056	3,274	$53.11	$45.29	$0.00	$0.00	$0.00	$0.00	$0.00	$44.76	$0.00	$0.53	$1.41	$6.41
Maine	$24,957	1,243	$68.35	$53.49	$0.06	$0.00	$0.06	$0.00	$0.00	$52.44	$0.31	$0.67	$1.87	$13.00
New Hampshire	$29,381	1,162	$70.22	$60.64	$0.00	$0.00	$0.00	$0.00	$0.00	$60.09	$0.00	$0.55	$1.18	$8.40
New Jersey	$237,155	7,988	$71.81	$55.09	$0.13	$0.00	$0.13	$0.11	$0.00	$54.03	$0.00	$0.83	$2.26	$14.46
New York	$501,965	18,185	$106.89	$76.39	$14.92	$12.29	$2.62	$7.94	$5.06	$46.34	$0.23	$1.90	$3.49	$27.01
Rhode Island	$23,601	990	$55.96	$49.01	$0.04	$0.00	$0.04	$0.00	$0.00	$48.36	$0.00	$0.61	$1.00	$5.95
Vermont	$12,415	589	$64.77	$54.50	$0.13	$0.00	$0.13	$0.00	$0.00	$53.94	$0.00	$0.43	$1.46	$8.81
Simple Average of Nearby States→			*$70.16*	*$56.34*	*$2.18*	*$1.76*	*$0.43*	*$1.15*	*$0.72*	*$51.42*	*$0.08*	*$0.79*	*$1.81*	*$12.00*
Similar States														
Colorado	$89,771	3,823	$79.77	$49.27	$15.78	$14.36	$1.42	$0.00	$0.00	$31.64	$0.24	$1.60	$6.25	$24.25
Maryland	$132,784	5,072	$61.26	$44.92	$1.58	$0.00	$1.58	$13.59	$0.00	$26.88	$0.00	$2.87	$3.18	$13.16
Minnesota	$110,494	4,658	$76.97	$39.16	$1.08	$0.23	$0.85	$0.00	$0.00	$37.17	$0.05	$0.86	$7.53	$30.28
Virginia	$158,669	6,675	$59.54	$42.39	$8.01	$3.75	$4.26	$0.00	$0.00	$30.43	$0.67	$3.28	$3.46	$13.69
Washington	$129,117	5,533	$70.52	$37.80	$11.46	$8.19	$3.27	$0.00	$0.00	$22.25	$0.72	$3.37	$4.48	$28.24
Wisconsin	$114,042	5,160	$72.58	$49.28	$1.53	$1.26	$0.27	$0.00	$0.00	$46.95	$0.00	$0.79	$3.58	$19.72
Simple Average of Similar States→			*$70.11*	*$43.80*	*$6.57*	*$4.63*	*$1.94*	*$2.26*	*$0.00*	*$32.55*	*$0.28*	*$2.13*	*$4.75*	*$21.56*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 3A

2005-06 BURDEN OF STATE AND LOCAL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Total Personal Income and Population in 2005-06		State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
					General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	Total Personal Income (000s)	Population (000s)	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*$10,968,393,000*	*299,398*	*$108.97*	*$37.57*	*$25.73*	*$11.85*	*$24.49*	*$4.83*	*$32.74*	*$82.96*
Massachusetts	**$297,905,362**	**6,437**	**$102.84**	**$20.45**	**$13.46**	**$6.99**	**$35.19**	**$6.24**	**$36.35**	**$85.00**
Range of Similarity: 95-105%→			$97.70-107.98	$19.43-21.47	$12.79-14.13	$6.64-7.34	$33.43-36.95	$5.93-6.55	$34.53-38.17	$80.75-89.25
Nearby States										
Connecticut	$177,452,995	3,505	$111.98	$28.01	$17.14	$10.88	$32.56	$3.58	$42.64	$92.33
Maine	$42,202,194	1,322	$137.57	$39.58	$24.67	$14.90	$32.44	$4.46	$52.38	$109.49
New Hampshire	$52,148,718	1,315	$86.62	$13.58	$0.00	$13.58	$1.55	$10.41	$53.32	$54.87
New Jersey	$405,254,344	8,725	$116.74	$26.18	$16.91	$9.27	$25.93	$6.19	$50.71	$93.54
New York	$848,936,717	19,306	$145.67	$37.22	$25.68	$11.54	$45.48	$10.66	$42.92	$114.09
Rhode Island	$39,835,439	1,068	$117.48	$35.28	$21.44	$13.83	$25.59	$4.26	$47.39	$94.43
Vermont	$21,647,445	624	$127.17	$37.46	$15.25	$22.21	$25.04	$3.98	$53.05	$93.33
Simple Average of Nearby States→			*$120.46*	*$31.04*	*$17.30*	*$13.74*	*$26.94*	*$6.22*	*$48.91*	*$93.15*
Similar States										
Colorado	$188,221,719	4,735	$91.51	$33.03	$25.51	$7.52	$22.63	$2.43	$27.99	$76.13
Maryland	$245,303,232	5,616	$105.13	$25.37	$13.79	$11.58	$40.14	$3.45	$24.30	$78.23
Minnesota	$200,300,473	5,167	$112.28	$37.14	$22.50	$14.64	$34.26	$5.35	$26.66	$83.42
Virginia	$302,098,188	7,643	$99.50	$26.78	$14.18	$12.60	$30.03	$2.86	$30.56	$74.78
Washington	$243,597,024	6,396	$103.32	$63.27	$48.49	$14.78	$0.00	$0.00	$28.37	$76.86
Wisconsin	$191,725,759	5,557	$116.31	$32.77	$22.92	$9.85	$30.81	$4.22	$41.85	$95.58
Simple Average of Similar States→			*$104.68*	*$36.39*	*$24.56*	*$11.83*	*$26.31*	*$3.05*	*$29.96*	*$80.83*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 3B

1995-96 TAX BURDENS OF STATE AND LOCAL TAXES (REVENUE PER $1,000 OF PERSONAL INCOME) FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Total Personal Income and Population in 1995-96		State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
					General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	Total Personal Income (000,000s)	Population (000s)	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*$6,079,436*	*264,741*	*$113.20*	*$40.93*	*$27.80*	*$13.13*	*$24.15*	*$5.26*	*$34.35*	*$86.29*
Massachusetts	**$170,185**	**6,092**	**$112.37**	**$23.23**	**$15.34**	**$7.89**	**$39.41**	**$7.21**	**$38.05**	**$92.79**
Range of Similarity: 95-105%→			$106.75-117.99	$22.07-24.39	$14.57-16.11	$7.50-8.28	$37.44-41.38	$6.85-7.57	$36.15-39.95	$88.15-97.43
Nearby States										
Connecticut	$104,056	3,274	$120.54	$37.79	$23.50	$14.29	$25.13	$6.16	$44.76	$93.38
Maine	$24,957	1,243	$129.48	$37.56	$26.36	$11.20	$28.43	$2.85	$54.18	$108.98
New Hampshire	$29,381	1,162	$89.13	$14.59	$0.00	$14.59	$1.76	$6.11	$60.10	$61.87
New Jersey	$237,155	7,988	$115.74	$31.18	$18.21	$12.97	$20.07	$4.87	$54.04	$92.32
New York	$501,965	18,185	$144.42	$38.65	$26.17	$12.49	$42.60	$10.50	$46.34	$115.11
Rhode Island	$23,601	990	$114.85	$33.22	$19.71	$13.51	$24.60	$3.69	$48.75	$93.06
Vermont	$12,415	589	$122.25	$32.66	$14.70	$17.96	$22.63	$3.61	$54.80	$92.12
Simple Average of Nearby States→			*$119.49*	*$32.24*	*$18.38*	*$13.86*	*$23.60*	*$5.40*	*$51.85*	*$93.83*
Similar States										
Colorado	$89,771	3,823	$102.97	$38.55	$29.08	$9.47	$25.33	$2.29	$31.64	$86.05
Maryland	$132,784	5,072	$106.43	$28.36	$15.06	$13.29	$39.83	$2.49	$28.58	$83.48
Minnesota	$110,494	4,658	$131.86	$41.73	$26.48	$15.26	$37.43	$6.36	$37.25	$101.15
Virginia	$158,669	6,675	$98.48	$30.63	$16.33	$14.31	$27.11	$2.29	$30.55	$73.98
Washington	$129,117	5,533	$119.79	$72.39	$56.07	$16.32	$0.00	$0.00	$36.19	$92.27
Wisconsin	$114,042	5,160	$133.33	$36.87	$25.01	$11.86	$36.40	$5.44	$47.69	$109.09
Simple Average of Similar States→			*$115.48*	*$41.42*	*$28.00*	*$13.42*	*$27.68*	*$3.15*	*$35.32*	*$91.00*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 3C

10-YEAR CHANGE IN TAX BURDEN OF STATE AND LOCAL TAXES FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Per Capita Income			State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
						General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	1995-96	2005-06	10-Year Change	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*$22,964*	*$36,635*	*59.5%*	*-3.7%*	*-8.2%*	*-7.4%*	*-9.8%*	*1.4%*	*-8.3%*	*-4.7%*	*-3.9%*
Massachusetts	**$27,936**	**$46,280**	**65.7%**	**-8.5%**	**-12.0%**	**-12.2%**	**-11.4%**	**-10.7%**	**-13.5%**	**-4.5%**	**-8.4%**
Range of Similarity: 95-105%→				-8.0→-9.0%	-11.5→-12.5%	-11.7→-12.7%	-10.9→-11.9%	-10.2→-11.2%	-13.0→-14.0%	-4.0→-5.0%	-7.9→-8.9%
Nearby States											
Connecticut	$31,783	$50,629	59.3%	-7.1%	-25.9%	-27.1%	-23.9%	29.6%	-41.9%	-4.7%	-1.1%
Maine	$20,078	$31,923	59.0%	6.2%	5.4%	-6.4%	33.1%	14.1%	56.5%	-3.3%	0.5%
New Hampshire	$25,285	$39,657	56.8%	-2.8%	-7.0%	N/A	-7.0%	-12.1%	70.2%	-11.3%	-11.3%
New Jersey	$29,689	$46,447	56.4%	0.9%	-16.0%	-7.1%	-28.6%	29.2%	27.1%	-6.2%	1.3%
New York	$27,603	$43,973	59.3%	0.9%	-3.7%	-1.9%	-7.6%	6.8%	1.5%	-7.4%	-0.9%
Rhode Island	$23,839	$37,299	56.5%	2.3%	6.2%	8.8%	2.4%	4.0%	15.7%	-2.8%	1.5%
Vermont	$21,078	$34,691	64.6%	4.0%	14.7%	3.7%	23.7%	10.7%	10.2%	-3.2%	1.3%
Simple Average of Nearby States→	*$25,622*	*$40,660*	*58.8%*	*0.6%*	*-3.8%*	*-4.3%*	*-1.1%*	*11.7%*	*19.9%*	*-5.6%*	*-1.2%*
Similar States											
Colorado	$23,482	$39,751	69.3%	-11.1%	-14.3%	-12.3%	-20.6%	-10.7%	6.1%	-11.5%	-11.5%
Maryland	$26,180	$43,679	66.8%	-1.2%	-10.5%	-8.5%	-12.9%	0.8%	38.7%	-15.0%	-6.3%
Minnesota	$23,721	$38,765	63.4%	-14.8%	-11.0%	-15.0%	-4.0%	-8.5%	-15.9%	-28.4%	-17.5%
Virginia	$23,771	$39,526	66.3%	1.0%	-12.6%	-13.1%	-11.9%	10.8%	25.0%	0.0%	1.1%
Washington	$23,336	$38,086	63.2%	-13.7%	-12.6%	-13.5%	-9.4%	N/A	N/A	-21.6%	-16.7%
Wisconsin	$22,101	$34,502	56.1%	-12.8%	-11.1%	-8.3%	-17.0%	-15.4%	-22.6%	-12.2%	-12.4%
Simple Average of Similar States→	*$23,765*	*$39,052*	*64.2%*	*-8.8%*	*-12.0%*	*-11.8%*	*-12.6%*	*-3.8%*	*5.2%*	*-14.8%*	*-10.6%*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 4A

2005-06 PER CAPITA YIELD OF COMBINED GROUPS OF STATE AND LOCAL TAXES FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Total Personal Income and Population in 2005-06		State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
					General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	Total Personal Income (000s)	Population (000s)	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*$10,968,393,000*	*299,398*	*$3,992*	*$1,376*	*$942*	*$434*	*$897*	*$177*	*$1,199*	*$3,039*
Massachusetts	**$297,905,362**	**6,437**	**$4,759**	**$946**	**$623**	**$324**	**$1,629**	**$289**	**$1,682**	**$3,934**
Range of Similarity: 95-105%→			$4,521-4,997	$899-993	$592-654	$308-340	$1,548-1,710	$275-303	$1,598-1,766	$3,737-4,131
Nearby States										
Connecticut	$177,452,995	3,505	$5,670	$1,418	$868	$551	$1,648	$181	$2,159	$4,675
Maine	$42,202,194	1,322	$4,391	$1,263	$788	$476	$1,035	$142	$1,672	$3,495
New Hampshire	$52,148,718	1,315	$3,435	$538	$0	$538	$62	$413	$2,114	$2,176
New Jersey	$405,254,344	8,725	$5,422	$1,216	$785	$430	$1,204	$287	$2,355	$4,345
New York	$848,936,717	19,306	$6,405	$1,637	$1,129	$508	$2,000	$469	$1,887	$5,017
Rhode Island	$39,835,439	1,068	$4,382	$1,316	$800	$516	$955	$159	$1,768	$3,522
Vermont	$21,647,445	624	$4,412	$1,300	$529	$771	$869	$138	$1,840	$3,238
Simple Average of Nearby States→			*$4,874*	*$1,241*	*$700*	*$541*	*$1,110*	*$256*	*$1,971*	*$3,781*
Similar States										
Colorado	$188,221,719	4,735	$3,637	$1,313	$1,014	$299	$899	$97	$1,113	$3,026
Maryland	$245,303,232	5,616	$4,592	$1,108	$602	$506	$1,753	$151	$1,062	$3,417
Minnesota	$200,300,473	5,167	$4,353	$1,440	$872	$568	$1,328	$207	$1,034	$3,234
Virginia	$302,098,188	7,643	$3,933	$1,059	$560	$498	$1,187	$113	$1,208	$2,956
Washington	$243,597,024	6,396	$3,935	$2,410	$1,847	$563	$0	$0	$1,080	$2,927
Wisconsin	$191,725,759	5,557	$4,013	$1,131	$791	$340	$1,063	$145	$1,444	$3,298
Simple Average of Similar States→			*$4,077*	*$1,410*	*$948*	*$462*	*$1,039*	*$119*	*$1,157*	*$3,143*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 4B

1995-96 PER CAPITA YIELD OF COMBINED GROUPS OF STATE AND LOCAL TAXES FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Total Personal Income and Population in 1995-96		State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
					General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	Total Personal Income (000s)	Population (000s)	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*$6,079,436*	*264,741*	*$2,599*	*$940*	*$638*	*$302*	*$555*	*$121*	*$789*	*$1,982*
Massachusetts	**$170,185**	**6,092**	**$3,139**	**$649**	**$428**	**$221**	**$1,101**	**$202**	**$1,063**	**$2,592**
Range of Similarity: 95-105%→			$2,982-3,296	$617-681	$407-449	$210-232	$1,046-1,156	$192-212	$1,010-1,116	$2,462-2,722
Nearby States										
Connecticut	$104,056	3,274	$3,831	$1,201	$747	$454	$799	$196	$1,422	$2,968
Maine	$24,957	1,243	$2,600	$754	$529	$225	$571	$57	$1,088	$2,188
New Hampshire	$29,381	1,162	$2,254	$369	$0	$369	$45	$155	$1,520	$1,564
New Jersey	$237,155	7,988	$3,436	$926	$541	$385	$596	$145	$1,604	$2,741
New York	$501,965	18,185	$3,987	$1,067	$722	$345	$1,176	$290	$1,279	$3,177
Rhode Island	$23,601	990	$2,738	$792	$470	$322	$586	$88	$1,162	$2,218
Vermont	$12,415	589	$2,577	$688	$310	$379	$477	$76	$1,155	$1,942
Simple Average of Nearby States→			*$3,060*	*$828*	*$474*	*$354*	*$607*	*$144*	*$1,319*	*$2,400*
Similar States										
Colorado	$89,771	3,823	$2,418	$905	$683	$222	$595	$54	$743	$2,021
Maryland	$132,784	5,072	$2,786	$742	$394	$348	$1,043	$65	$748	$2,186
Minnesota	$110,494	4,658	$3,128	$990	$628	$362	$888	$151	$884	$2,399
Virginia	$158,669	6,675	$2,341	$728	$388	$340	$644	$54	$726	$1,759
Washington	$129,117	5,533	$2,795	$1,689	$1,309	$381	$0	$0	$845	$2,153
Wisconsin	$114,042	5,160	$2,947	$815	$553	$262	$804	$120	$1,054	$2,411
Simple Average of Similar States→			*$2,736*	*$978*	*$659*	*$319*	*$662*	*$74*	*$833*	*$2,155*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 4C

10-YEAR CHANGE IN YIELD OF STATE AND LOCAL TAXES FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Population			State and Local Taxes							State and Local General Sales, Personal Income and Property Taxes
						General and Selective Sales Taxes		Personal and Corporate Income Taxes			
	1995-96	2005-06	10-Year Change	Total State and Local Taxes	State and Local Sales Taxes	State and Local General Sales Taxes	State and Local Selective Sales Taxes	State and Local Personal Income Taxes	State and Local Corporate Income Taxes	State and Local Property Taxes	
United States	*264,741*	*299,398*	*13.1%*	*53.6%*	*46.5%*	*47.7%*	*43.9%*	*61.8%*	*46.3%*	*52.1%*	*53.4%*
Massachusetts	**6,092**	**6,437**	**5.7%**	**51.6%**	**45.8%**	**45.4%**	**46.7%**	**47.9%**	**43.3%**	**58.3%**	**51.8%**
Nearby States											
Connecticut	3,274	3,505	7.1%	48.0%	18.1%	16.2%	21.2%	106.4%	-7.5%	51.8%	57.5%
Maine	1,243	1,322	6.4%	68.9%	67.5%	48.8%	111.6%	81.4%	148.8%	53.7%	59.7%
New Hampshire	1,162	1,315	13.2%	52.4%	45.9%	N/A	45.9%	37.9%	166.9%	39.1%	39.1%
New Jersey	7,988	8,725	9.2%	57.8%	31.4%	45.3%	11.8%	102.1%	98.8%	46.8%	58.5%
New York	18,185	19,306	6.2%	60.7%	53.4%	56.4%	47.3%	70.1%	61.7%	47.5%	57.9%
Rhode Island	990	1,068	7.9%	60.0%	66.2%	70.2%	60.2%	62.8%	81.0%	52.1%	58.8%
Vermont	589	624	5.9%	71.2%	88.8%	70.7%	103.6%	82.1%	81.3%	59.3%	66.7%
Simple Average of Nearby States→			*8.0%*	*59.3%*	*49.9%*	*47.6%*	*52.9%*	*82.9%*	*77.8%*	*49.5%*	*57.6%*
Similar States											
Colorado	3,823	4,735	23.9%	50.4%	45.0%	48.5%	34.5%	51.2%	79.6%	49.8%	49.8%
Maryland	5,072	5,616	10.7%	64.8%	49.3%	52.7%	45.4%	68.1%	131.4%	41.9%	56.4%
Minnesota	4,658	5,167	10.9%	39.2%	45.4%	38.9%	56.8%	49.6%	37.4%	17.0%	34.8%
Virginia	6,675	7,643	14.5%	68.0%	45.4%	44.4%	46.5%	84.2%	107.8%	66.4%	68.1%
Washington	5,533	6,396	15.6%	40.8%	42.6%	41.1%	47.8%	N/A	N/A	27.9%	36.0%
Wisconsin	5,160	5,557	7.7%	36.2%	38.8%	43.1%	29.6%	32.1%	20.9%	37.0%	36.8%
Simple Average of Similar States→			*13.9%*	*49.0%*	*44.1%*	*43.8%*	*44.8%*	*56.8%*	*60.4%*	*38.8%*	*45.9%*

TABLE 5

SPENDING FOR PUBLIC K-12 EDUCATION AS A PROPORTION OF INCOME FOR MASSACHUSETTS, NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

States	Personal Income, Current Spending, and Federal Revenue						State and Local Spending for Public Elementary and Secondary Education as a Proportion of Personal Income	
	Personal Income (millions)		Current Spending for Public Elementary and Secondary Education (000s)		Federal Revenue to Public Elementary and Secondary Education (000s)			
	1995-96	2005-06	1995-96	2005-06	1995-96	2005-06	1995-96	2005-06
United States	*$6,079,436*	*$10,968,393*	*$255,106,683*	*$449,594,924*	*$19,104,019*	*$47,553,827*	*3.88%*	*3.67%*
Massachusetts	**$170,185**	**$297,905**	**$6,435,458**	**$12,210,581**	**$318,591**	**$772,305**	**3.59%**	**3.84%**
	Range of Similarity: 95-105%→						3.41-3.77%	3.65-4.03%
Nearby States								
Connecticut	$104,056	$177,453	$4,366,123	$7,517,025	$177,394	$417,629	4.03%	4.00%
Maine	$24,957	$42,202	$1,313,759	$2,119,408	$80,876	$233,741	4.94%	4.47%
New Hampshire	$29,381	$52,149	$1,114,540	$2,139,113	$40,623	$130,585	3.66%	3.85%
New Jersey	$237,155	$405,254	$11,208,558	$20,869,993	$402,135	$1,001,813	4.56%	4.90%
New York	$501,965	$848,937	$23,522,461	$41,149,457	$1,507,150	$3,383,866	4.39%	4.45%
Rhode Island	$23,601	$39,835	$1,094,185	$1,934,429	$57,906	$156,794	4.39%	4.46%
Vermont	$12,415	$21,647	$684,864	$1,237,442	$36,481	$101,868	5.22%	5.25%
	Simple Average of Nearby States→						*4.45%*	*4.48%*
Similar States								
Colorado	$89,771	$188,222	$3,360,529	$6,368,289	$200,537	$530,970	3.52%	3.10%
Maryland	$132,784	$245,303	$5,311,207	$9,381,613	$281,710	$663,204	3.79%	3.55%
Minnesota	$110,494	$200,300	$4,844,879	$7,686,638	$253,845	$595,175	4.16%	3.54%
Virginia	$158,669	$302,098	$5,969,608	$11,470,735	$361,752	$866,993	3.53%	3.51%
Washington	$129,117	$243,597	$5,394,507	$8,239,716	$365,988	$877,922	3.89%	3.02%
Wisconsin	$114,042	$191,726	$5,670,826	$8,745,195	$273,225	$586,486	4.73%	4.26%
	Simple Average of Similar States→						*3.94%*	*3.50%*

Note: Black figures are similar to Massachusetts (95-105% of Massachusetts); orange figures are less than 95% of Massachusetts; blue figures are more than 105% of Massachusetts

TABLE 6

CURRENT AND ALTERNATIVE TAX BURDENS OF STATE AND LOCAL TAXES IN 2005-06 FOR MASSACHUSETTS COMPARED TO THE ACTUAL AVERAGE TAX BURDEN OF NEARBY STATES, SIMILAR STATES, AND THE UNITED STATES

	State-Level Taxes								
		Sales Taxes			Income Taxes				
States	Total State-Level Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes
United States	*$64.81*	*$30.36*	*$20.67*	*$9.69*	*$22.42*	*$4.33*	*$1.08*	*$1.73*	*$4.90*
Massachusetts									
Current	**$65.11**	**$19.93**	**$13.46**	**$6.47**	**$35.19**	**$6.24**	**$0.00**	**$0.99**	**$2.75**
Alternative	***$70.21***	***$27.18***	***$16.82***	***$10.36***	***$31.67***	***$5.62***	***$1.50***	***$1.49***	***$2.75***
Simple Average of *Nearby* States	$72.28	$28.82	$15.50	$13.33	$25.63	$5.37	$6.64	$1.59	$4.23
Simple Average of *Similar* States	$64.61	$29.95	$20.12	$9.83	$23.80	$3.05	$2.14	$1.68	$3.98

	Local-Level Taxes								
		Sales Taxes			Income Taxes				
States	Total Local-Level Taxes	Total Sales Taxes	General Sales Taxes	Selective Sales Taxes	Personal Income	Corporate Income	Property Taxes	Motor Vehicle Taxes	Other Taxes
United States	*$44.16*	*$7.22*	*$5.06*	*$2.16*	*$2.07*	*$0.50*	*$31.67*	*$0.14*	*$2.58*
Massachusetts									
Current	**$37.73**	**$0.52**	**$0.00**	**$0.52**	**$0.00**	**$0.00**	**$36.35**	**$0.00**	**$0.86**
Alternative	***$36.10***	***$2.52***	***$2.00***	***$0.52***	***$0.00***	***$0.00***	***$32.72***	***$0.00***	***$0.86***
Simple Average of *Nearby* States	$48.18	$2.22	$1.80	$0.42	$1.31	$0.85	$42.28	$0.06	$1.47
Simple Average of *Similar* States	$40.07	$6.44	$4.45	$2.00	$2.51	$0.00	$27.81	$13.00	$3.16

LOOKING AT OTHER STATES AND COUNTRIES FOR EXAMPLES OF EDUCATION SPENDING INCREASES

In August of 2008, the Massachusetts Secretary of Education asked Augenblick, Palaich and Associates (APA) to examine the impact of state and local taxes in Massachusetts and to compare Massachusetts to other states in order to determine whether a change in Massachusetts state tax policy might allow new revenues to be generated without harming the state's competitive position. To supplement this work, APA also looked for examples of how other states had increased their education funding, including the new source of funding and the additional amount of funding raised. Further, APA looked at other countries that showed significant increases in education funding and what factors contributed to these changes.

State Examples

APA selected four states -Maryland, Arkansas, Kentucky and Virginia- that have increased their funding of public education. For each state, APA answered the four following questions:

1. What was the event that prompted the funding increase?
2. What was the new source of funding?
3. How was the new funding intended to be used?
4. How much was education funding increased?

Much of the information gathered for this report came from legislative reports and reports from outside consultants. When complete financial information was unavailable in these reports, APA used financial data from the National Center for Education Statistics (NCES) to supplement the figures. This financial data allows for a closer look at the implementation of funding increases from year to year but cannot be used to determine total funding increases beyond 2005-06, which is the most recent year of data available from NCES. Figures were adjusted for inflation using the national inflation calculator from the U.S. Department of Labor Bureau of Labor Statistics.

Maryland

In 2002 Maryland enacted the Bridge to Excellence in Public Schools Act (Senate Bill 856) that restructured the state's public education finance system and increased spending for education over the following six years. This legislation was based on the recommendations made by the Commission on Education, Finance, Equity and Excellence (known as the Thornton Commission). The Thornton Commission was formed in 2000 with the task of estimating adequate and equitable spending to provide the resources needed to meet state academic performance standards.

The Bridge to Excellence Act was designed to accomplish the following five objectives:[1]

1. Wealth equalization across school districts;
2. Provide adequate funding so that all students can meet state performance standards;
3. Ensure that all students have access to a quality education;

[1] MGT of America. "An Evaluation of the Effect of Increased State Aid to Local School Systems Through the Bridge to Excellence Act." (2007) Interim Report, Vol 1.

4. Allow for local control in determining how funding is used; and
5. Encourage community involvement in the planning process in each school district.

By 2008, the Bridge to Excellence Act called for an additional $1.3 billion in education spending and for a total increase in state funding (not total funding) of 75 percent over 2002 levels.[2]

New Source of Funding

New funds were generated through a 34-cent increase in the state tax on the sale of cigarettes. This increased the total state tax from 66 cents to a dollar, which represented a 51.5 percent cigarette tax increase.

How Additional Funding was Intended to be Used

Primarily, the additional funds generated by the Bridge to Excellence Act were provided to school districts through the state's funding formula as unrestricted block grants and were intended to be used based on local school district discretion. This reflected the Commission's "belief that a standards based school finance system should focus on outcomes rather than required programs."[3] To receive these funds, school districts were required to develop and implement five-year "Comprehensive Master Plans" to address student needs. District then had to document how the additional funds were used to meet the objectives identified in these plans. Districts were also required to provide annual updates on their progress towards meeting student performance goals at the local, state and federal level and to make any adjustments necessary to the Comprehensive Master Plans to address performance deficiencies.[4]

Two programs were required to be financed by the additional funds: preschool and full-day kindergarten.[5] Kindergarten students were to be counted as a full-time-equivalent (FTE) and were required to be served in a full-day program by 2008.[6] Preschool programs were required for all economically disadvantaged four-year olds by 2007-2008.

Amount of Additional Funding Introduced

According to MGT of America, since the implementation of the Bridge to Excellence Act, total education funding has increased $3.4 billion from $6.93 billion in 2001-02 to $10.388 billion in 2007-2008.[7] This is an increase of 32.8 percent above inflation.

Since the MGT report did not include how funding increased from year to year, APA also looked at data from the National Center for Education Statistics (NCES) on total state funding. Figures from NCES cannot be directly compared with the total funding increase reported by MGT or called for by the legislation since it is only available through 2005-06 and new funding targets were not expected to be reached until 2007-08. However, NCES data is helpful to examine how the additional funding was introduced and what the percent increase has been above inflation from year to year.

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[2] Ibid.
[3] MGT of America. "An Evaluation of the Effect of Increased State Aid to Local School Systems Through the Bridge to Excellence Act." (2007) Interim Report, Vol 1, p. 14.
[4] Ibid.
[5] Department of Legislative Services. "The Bridge to Excellence in Public Schools Act of 2002: Its Origins, Components and Future." (2002) Office of Policy Analysis: Annapolis, MD.
[6] Ibid.
[7] Ibid.

Table A shows the initial year of the funding increase (shaded in gray) as well as subsequent years through 2005-06. The year prior to the implementation of the funding increase is included as a baseline.

Table A: Maryland Public Education Spending 2001-02 through 2005-06 according to NCES					
Year	2001-02	2002-03	2003-04	2004-05	2005-06
Total Spending	$ 6.94 billion	$ 7.35 billion	$ 7.62 billion	$ 8.02 billion	$ 8.72 billion
Percent Increase Above Inflation	4.0%	3.6%	0.9%	1.9%	5.3%

Arkansas

There have been several key Arkansas Supreme Court decisions that called for additional funding for public schools, the most recent of which was in 2002. In 2003, to maintain the constitutionality of the state school funding system, the legislature created the Joint Committee on Education Adequacy that was charged with examining the state's education system to ensure adequate funding for all students.[8] More recently, in 2007 the joint committee created the Joint Adequacy Evaluation Oversight Subcommittee which heard testimony from the Arkansas Department of Education (ADE), the Attorney General's office, school districts, and the Bureau of Legislative Research (BLR).[9] BLR staff also analyzed district financial data and surveyed district superintendents and school principals to examine revenue usage at schools.[10] The joint committee then provided recommendations to the General Assembly concerning education funding and policy.

New Source of Funding

The majority of new funds came from an increase in the sales tax of 7/8 of a cent and some additional business taxes.[11]

How Additional Funding was Intended to be Used

Additional funding was distributed to school districts through foundation funding, enhanced funding, Uniform Rate of Tax (URT) funding, categorical funding, and additional state disbursements. Foundation funding, enhancing funding and URT funding were distributed as a block grant with no specific program designations. Categorical funding, on the other hand, provided additional funding to schools for specific programs and to serve specific students, including funds to provide Alternative Learning Environments, to serve English Language Learners, to serve students at schools with high poverty concentrations, and for professional development.[12] The state also designated and disbursed additional funding specifically

[8] House and Senate Interim Committees in Education. "A Report on Legislative Hearings for the 2008 Interim Study on Educational Adequacy." (2008) Vol 1.
[9] Ibid.
[10] Ibid.
[11] Personal communication with Lawrence Picus, Professor at the USC Rossier School of Education at the University of Southern California
[12] Ibid.

to address costs associated with geographic isolation, special education, enrollment decline and growth, and transportation costs.

Amount of Additional Funding Introduced

According to a report issued by the House and Senate Interim Committees on Education, in 2003-04 the state provided $1.85 billion total for K-12 education and in 2007-08 they are projected to provide $3.00 billion.[13] This is a 39.1 percent increase above inflation. This included two separate instances where Arkansas legislatures introduced significant funding increases, the first in 2004-05 and the second in 2007-08.

The legislative committee report included how this funding increase was implemented from year to year, so APA did not need to use NCES figures. The figures from the legislative report are used to show the total spending in each year as well as the increase from year to year above inflation.

Table B shows the initial year of the two funding increases (shaded in gray). The year prior to the implementation of the first funding increase is included as a baseline.

Table B:
Arkansas Public Education Spending
2003-04 through 2007-08 according to
Arkansas Senate and House Interim Committees on Education

Year	2003-04	2004-05	2005-06	2006-07	*projected* 2007-08
Total Spending	1.85 billion	2.23 billion	2.34 billion	2.47 billion	3.00 billion
Percent Increase Above Inflation	3.6%	16.6%	1.6%	2.8%	14.4%

Kentucky

Changes to the Kentucky public school funding system began in the courts. Originating in 1985, *Rose v. Council for Better Education* the plaintiffs argued that the state's funding system violated the equal protection clause of the US Constitution's 14th amendment and section 183 of the state constitution which states that "The General Assembly shall, by appropriate legislation, provide for an efficient system of common schools throughout the state."[14] In September of 1989, the Kentucky Supreme Court ruled that the funding system violated both equal protection and the efficient school system requirement and called for the legislature to correct the system.[15] In April of 1990, Governor Wallace Wilkenson signed the Kentucky Education Reform Act of 1990 (KERA).[16]

[13] House and Senate Interim Committees in Education. "A Report on Legislative Hearings for the 2008 Interim Study on Educational Adequacy." (2008) Vol 1.
[14] Ibid, p.1.
[15] Weston, Susan P. and Robert F. Sexton. "Substantial Yet Not Sufficient: Kentucky's Effort to Build Proficiency for Each and Every Child." (2007) The Campaign for Educational Equity, Teacher's College at Columbia University.
[16] Ibid.

New Source of Funding

KERA established a state equalization formula that had three mechanisms for raising additional education funds:[17]

1. All districts were required to collect local taxes equivalent to 30 cents per 100 dollars of taxable property with the state committing to provide any additional funds needed for districts to meet the established base amount, including additional dollars for "exceptional children, free-lunch participants and transportation needs."[18]
2. Tier I allowed all districts to set higher tax rates and claim additional state equalization funding.
3. Tier II allowed districts that had claimed their maximum share of Tier I funding to raise "additional unequalized dollars.[19]

There was also a renewed commitment to requiring all districts to assess property at full market value, which when combined with increased pressure to improve tax collections and available Tier I funds, increased local contributions to education significantly.[20]

How Additional Funding was Intended to be Used

KERA was a restructuring of the entire school funding system. Much of the additional funding generated was unrestricted, but there were several new programs that were introduced as a result:[21]

1. Preschool for low income four-year olds and for three and four-year olds with disabilities;
2. "An ungraded primary school program to replace kindergarten through grade three with a flexible continuous progress program;"[22]
3. Extended-day programs including after school, weekend, or summer school;
4. An improved statewide technology system; and
5. Family Resource Centers and Youth Service Centers.

Amount of Additional Funding Introduced

According to a report by the Campaign for Educational Equity, state education spending increased 32 percent from 1990 to 1992, before accounting for inflation.[23]

APA looked at data from NCES to see how the funding increase was implemented and what the increase was above inflation from year to year.

Table C shows the initial year of the funding increase (shaded in gray) as well four subsequent years through 1994-95. The year prior to the implementation of the funding increase is included as a baseline.

[17] Weston, Susan P. and Robert F. Sexton. "Substantial Yet Not Sufficient: Kentucky's Effort to Build Proficiency for Each and Every Child." (2007) The Campaign for Educational Equity, Teacher's College at Columbia University.
[18] Ibid, p.4.
[19] Ibid, p.4.
[20] Ibid.
[21] Ibid.
[22] Ibid, p3.
[23] Ibid.

Table C: Kentucky Public Education Spending 1989-90 through 1994-95 according to NCES						
Year	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
Total Spending	$ 1.91 billion	$ 2.22 billion	$ 2.41 billion	$ 2.51 billion	$ 2.62 billion	$ 2.69 billion
Percent Increase Above Inflation	6.6%	10.1%	4.3%	1.1%	1.3%	-0.1%

Virginia

In 2002, the Joint Legislative Audit and Review Commission issued a report that made several recommendations in regards to the state's funding system, many specifically targeting the balance between state and local contributions, the need to readdress the Standards of Quality staffing allocations, and the necessity to update the state's foundation cost estimates.

The 2002 General Assembly session addressed some of these recommendations by providing $24.9 million in 2003 and $50 million in 2004 to phase out the practice of "deducting prevailing locally generated revenues from the Basic Aid cost calculation."[24] Additionally, $4.1 million in 2003 and $54.2 million in 2004 were provided to readjust the amount provided for certain administrative support positions that had not been covered by the SOQ cost calculation. In 2003, the State Board of Education approved additional increases in the SOQ staffing allocations. These changes were dependent on additional funding being provided in the 2004 session.

In the 2004 General Assembly Session, a new budget was adopted that including the needed funding increases for education. This budget contained more than $1 billion for increases in SOQ allocations as well as updating inflation factors, updating health care premium costs, and funding the prevailing cost of administrative positions.[25] In addition, "contingent upon passage of recommended tax changes, the budget included increased funding for at-risk 4-year old programs, fully funding the cost of competing for support positions, and increased ESL staffing."[26] The Public Education Standards of Quality/Local Real Estate Property Relief Fund (House Bill 5018) was passed to generate the additional funding.

New Source of Funding

In 2004 as part of a larger tax reform plan with multiple beneficiaries, the sales tax was increased from 4.5 percent to 5 percent with half of this increase (.25 percent) being allocated to education.[27] Additionally, all lottery revenues in Virginia go towards education.[28]

How Additional Funding was Intended to be Used

[24] Kitchen, Kathy. "Funding of Standards of Quality." (2000) Commonwealth Education Policy Institute, p. 6.
[25] Ibid.
[26] Ibid, p. 6.
[27] Southern Regional Education Board. "Legislative Report." (2004) Report No. 4, June 2004.
[28] Personal communication with Michelle Vucci, Virginia Department of Education

Of the .25 cent sales increase, half is appropriated to support the following activities:[29]

1. Five elementary resource teacher positions per 1,000 students in grades K-5 in order to provide three periods of instruction per week in the areas of art, music, and physical education;
2. In 2005, to provide a required planning period for middle and high school teachers that allows for a 24:1 school-level pupil-teacher ratio, then full funding in 2006 to result in a 21:1 school-level pupil-teacher ratio; and
3. One technology support position per 1,000 students in 2005 and one support technology and one instructional technology position per 1,000 students in 2006.

Amount of Additional Funding Introduced

According to a report by the Commonwealth Education Policy Institute (CEPI), the increase in sales tax is estimated to generate an additional $167.0 million in fiscal year 2005 and $210.7 million in fiscal year 2006.[30]

Since the funding increase in Virginia is so recent there was little data about how much total additional funding was added, so APA used data collected from NCES to examine the total education spending through 2005-06, as well as the change from year to year above inflation.

Table D shows the initial year of the funding increase (shaded in gray) as well as subsequent year of 2005-06. The year prior to the implementation of the funding increase is included as a baseline.

Table D: Virginia Public Education Spending 2002003-04 through 2005-06 according to NCES			
Year	2003-04	2004-05	2005-06
Total Spending	$ 9.03 billion	$ 9.88 billion	$ 10.60 billion
Percent Increase Above Inflation	7.4%	3.5%	6.5%

<u>International Comparison</u>

In addition to looking at states within the US that had made significant gains in their public school funding, APA also looked at countries abroad. Using data collected from the Organization for Economic Co-operation and Development (OECD), we looked at the change in total government spending on education for every country. We then selected several of the countries that had the highest gains in funding between 1998 and 2005. These countries and their percentage change in funding during that time are presented in Table E.

[29] Kitchen, Kathy. "Funding of Standards of Quality." (2000) Commonwealth Education Policy Institute.
[30] Kitchen, Kathy. "Funding of Standards of Quality." (2000) Commonwealth Education Policy Institute.

Table E: Change in Education Spending in Selected Countries	
Country	Percent increase in Government Spending on Primary and Secondary Education
Greece	115%
Hungary	161%
Ireland	123%
Norway	60%
United Kingdom	63%

For comparison purposes, the United States showed an increase of 42 percent during the same time period.

Having identified these countries, APA examined why there appeared to be such dramatic differences in their education spending during the given time period. APA analyzed additional data to determine if any of the following were factors in the funding increases:

1. Inflation;
2. Change in number of students being served; or
3. Change in wealth.

By accounting for these three factors APA could identify what portion of the observed spending increase was due to an increase in effort. Effort, in this case, is the ratio of spending on education to wealth.

To conduct this analysis, APA collected additional data for each country from the World Bank, including the Gross Domestic Product (GDP), education spending as a percentage of GDP, student enrollment in primary and secondary school, and Gross National Income (GNI) per capita (to measure wealth). Additionally, APA collected average annual inflation rates for each country and the conversion rate for the local currency into US dollars from the International Monetary Fund.

The following tables were created to show each country's actual spending increase in education due to effort. Table F adjusts the original spending increase figures for inflation, Table G then adjusts those figures for enrollment growth, Table H further adjusts those figures for changes in wealth, and finally, Table I shows the spending increases attributable to increases in effort.

Table F: Accounting for Inflation					
Selected Countries	Actual Spending on Education (in Millions of Local Currency)			1998 Spending Figures Inflated to 2005 Local Currency Units	**Percent Change Adjusted for Inflation**
	1998	2005	Percent Change		
Greece	3,667.0	7,898.0	115.4%	4,578.0	72.5%
Hungary	460,387.0	1,202,070.0	161.1%	739,669.5	62.5%
Ireland	3,449.0	7,696.0	123.1%	4,403.6	74.8%
Norway	85,619.0	136,614.0	59.6%	98,538.7	38.6%
United Kingdom	40,110.0	65,203.0	62.6%	44,028.9	48.1%
United States	437,682.0	622,787.0	42.3%	524,349.7	18.8%

In Table F, the education spending for each country for 1998 and 2005 reported in millions of local currency, as well as the percent change for that time period, is shown. These were the figures that APA used to select countries. However, these figures must be adjusted for inflation to get a more accurate picture of how a country's education spending has changed. To do so, the 1998 spending figures were adjusted for inflation to show what the same amount of funding would be worth in 2005 currency. The adjusted amount is shown in the final column of the table as is the percent change adjusted for inflation. By taking into account inflation, the percent increase in education for each country was adjusted and in certain cases this decrease was quite large. For example, Hungary had a 161.1 percent increase in spending observed initially, but instead only had a 62.5 percent increase after adjusting for inflation.

Table G: Accounting for Changes in Enrollment					
Selected Countries	Percent Change Adjusted for Inflation	Student Enrollment in Primary and Secondary Education			**Percent Change Adjusted for Inflation and Growth**
		1998	2005	Percent Change	
Greece	72.5%	1,573,491	1,339,808	-14.9%	102.6%
Hungary	62.5%	1,609,112	1,439,789	-10.5%	81.6%
Ireland	74.8%	777,858	722,400	-7.1%	88.2%
Norway	38.6%	712,989	796,109	11.7%	24.2%
United Kingdom	48.1%	9,676,040	9,820,613	1.5%	45.9%
US	18.8%	47,553,348	50,797,918	6.8%	11.2%

Table G then takes the inflation-adjusted spending increase calculated in Table F and attempts to account for any changes in their elementary and secondary student enrollment (growth) which would affect the amount of funding being spent on a per pupil basis. A country that is experienced growth in their student population while spending the same amount would actually be spending less per pupil, while a country with fewer students would be spending more. Any spending increase or decrease would need to be adjusted accordingly. It is interesting to note that three out of five comparison countries (Greece, Hungary, and Ireland) actually experienced a decline in their student population instead of seeing growth, so their spending increases needed to be adjusted upward. For instance, Greece experienced a 14.9 percent decrease in their student population so their inflation-adjusted increase in education spending was raised from 72.5 percent to 102.6 percent because the amount was spent on fewer students, so the increase in per pupil spending was much higher. On the other hand, a country with growing enrollment would have their inflation-adjusted increase lowered because the amount would be divided by a larger number of students. Norway experienced an 11.7 percent increase in enrollment so their inflation-adjusted increase in education spending was lowered from 38.6 percent to 24.2 percent

Table H: Accounting for Changes in Wealth					
Selected Countries	Percent Change Adjusted for Inflation and Growth	Wealth- Gross National Income (in Local Currency)			**Percent Change Adjusted for Inflation, Growth and Wealth**
		1998	2005	Percent Change	
Greece	85.2%	9,572	17,620	84.10%	10.1%
Hungary	69.9%	401,782	1,314,637	227.20%	-44.5%
Ireland	80.5%	18,785	42,281	125.10%	-16.4%
Norway	34.6%	251,057	546,577	117.70%	-43.0%
United Kingdom	47.4%	14,813	24,753	67.10%	-12.7%
US	17.6%	30,620	43,210	41.10%	-21.2%

Table H takes the figures from Table G that have been adjusted for inflation and growth, then attempts to account for any portion of the reported spending increase that could be attributable to changes in wealth, as represented as Gross National Income (GNI) per capita. If a country has a significant change in wealth they could also have a significant increase in funding for education due to having a larger tax base and not because of any changes in effort. In fact, countries may have a decrease in spending due to effort while still showing large gains in education spending. All of the selected countries showed overall increases in education spending even after being adjusted for inflation and growth, but these increases were not greater than the increases in wealth during the same time period. As such, the actual change in spending due to effort was significantly lower and in all but one of the countries there was a negative change in spending due to effort. For example, Ireland had a 125.1 percent increase in wealth from 1998 to 2005 so their spending increase, that was already adjusted for inflation and growth, would be lowered from 80.5 percent to negative 16.4 percent to reflect the actually change in education spending due to effort.

Table I: Summary: Spending Increase Adjusted for Inflation, Growth, and Wealth		
Selected Countries	Original Reported Spending Increase	**Percent Change due to Effort and not Inflation, Growth, or Wealth**
Greece	115.4%	10.1%
Hungary	161.1%	-44.5%
Ireland	123.1%	-16.4%
Norway	59.6%	-43.0%
United Kingdom	62.6%	-12.7%
US	42.3%	-21.2%

By accounting for changes in spending that would be due to inflation, growth and wealth APA concluded that the remaining change in spending is due to increases or decreases in effort. The final table, Table I compares the percent change in spending due to effort once inflation, growth or wealth have been taken into account with the original increase in education spending reported. This table shows that of the countries that had shown such large increases in their education spending from 1998 to 2005, only Greece actually increased spending as a result of effort. If it was not for inflation, changes in enrollment, and increase in wealth these countries would have actually decreased their total amount of education funding based on their effort. Hungary, for instance, initially had a 161.1 percent increase in education spending between 1998 and 2005, but once these factors had been accounted for their spending due to effort in 2005 was actually 44.5 percent *lower* than their spending due to effort in 1998. The United States decreased their education spending due to effort by 21.2 percent between 1998 and 2005. When the US compared to the other four countries that also had decreases in spending due to effort, Hungary and Norway had larger decreases in spending due to effort, while the decrease seen Ireland and the United Kingdom was smaller.